

PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference M40145096/GJN	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU00/00026	International Filing Date (<i>day/month/year</i>) 18 January 2000	Priority Date (<i>day/month/year</i>) 18 January 1999
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G02B 27/22, 27/26, G03B 35/24, H04N 13/04		
Applicant TRUTAN PTY LTD et al		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.																								
2.	This REPORT consists of a total of 4 sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of 6 sheet(s).																								
3.	This report contains indications relating to the following items: <table style="width: 100%; border: none;"> <tr> <td style="width: 5%;">I</td> <td style="width: 5%; text-align: center;"><input checked="" type="checkbox"/></td> <td>Basis of the report</td> </tr> <tr> <td>II</td> <td style="text-align: center;"><input type="checkbox"/></td> <td>Priority</td> </tr> <tr> <td>III</td> <td style="text-align: center;"><input type="checkbox"/></td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td>V</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Lack of unity of invention</td> </tr> <tr> <td>V</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td>VI</td> <td style="text-align: center;"><input type="checkbox"/></td> <td>Certain documents cited</td> </tr> <tr> <td>VII</td> <td style="text-align: center;"><input type="checkbox"/></td> <td>Certain defects in the international application</td> </tr> <tr> <td>VIII</td> <td style="text-align: center;"><input type="checkbox"/></td> <td>Certain observations on the international application</td> </tr> </table>	I	<input checked="" type="checkbox"/>	Basis of the report	II	<input type="checkbox"/>	Priority	III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	V	<input checked="" type="checkbox"/>	Lack of unity of invention	V	<input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	VI	<input type="checkbox"/>	Certain documents cited	VII	<input type="checkbox"/>	Certain defects in the international application	VIII	<input type="checkbox"/>	Certain observations on the international application
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VIII	<input type="checkbox"/>	Certain observations on the international application																							

Date of submission of the demand 2 August 2000	Date of completion of the report 30 April 2001
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer MICHAEL HALL Telephone No. (02) 6283 2474

I. Basis of the report

1. With regard to the elements of the international application:*
- ☐ the international application as originally filed.
- ☒ the description, pages 1-27, as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☒ the claims, pages 29, 31 as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 28, 30, 32-35, received on 6 April 2001 with the letter of 6 April 2001
- ☒ the drawings, pages 1-2, as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of
2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).
3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, was on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished
4. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages
- ☒ the claims, Nos. 1
- ☐ the drawings, sheets/fig.
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion this Authority has found that there are different inventions as follows:

1. Claims 1-25, 27-34 directed to provision of plural pairs of angles of view to be scanned by a viewer's left and right eyes. It is considered that provision of plural pairs of angles of view to be scanned by a viewer's eyes comprises a first "special technical feature".
2. Claims 26, 35-37 directed to an optical grid device, with variable elements controllable for causing progressive movement of transmissive/reflective and opaque zones across the device. It is considered that progressive movement of transmissive/reflective and opaque zones across the device comprises a second "special technical feature".

That these two inventions do not share the technical features identified is emphasised by page 14 lines 9-11 of the application, where it is stated that "the second aspect of the invention [invention 2 identified above] may be adapted to the scanning of conventional "two-view" three-dimensional imagery, and is therefore not limited in its application to the first aspect of the invention [invention 1 identified above]".

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

The International Search Report is sufficient for forming opinions as to the novelty and inventive step of all claims.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 3, 5, 7, 9-37	YES
	Claims 2, 4, 6, 8	NO
Inventive step (IS)	Claims 5, 7, 10-24, 26-27, 29-37	YES
	Claims 2-4, 6, 8-9, 25, 28	NO
Industrial applicability (IA)	Claims 2-37	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

Citations

D1 : Derwent Abstract 97-249085/23 (JP 09-080353)

D2 : WO 94/17638

D3 : US 5825541

NOVELTY (N) claims 2, 4, 6, 8

D1 discloses all the features of claims 2, 4, 6 and 8, where, referring to the Figure in D1, video devices provide three pairs of visibly distinct angles of view (12a, 12b, 13a, 13b, 14a, 14b) complementary about a common centre, which are simultaneously displayed for the eyes to scan and perceive a three dimensional image.

INVENTIVE STEP (IS) claims 2-4, 6, 8-9, 25, 28

Claims 2, 4, 6, 8: as above.

Claims 3, 9, 25, 28: D2 discloses an oscillating liquid crystal display grid used to display a sequence of a number of pairs of adjacent partial images complementary about a common centre, corresponding to distinct angles of view, for the left and right eyes respectively to scan and compare, so as to perceive a three-dimensional image (note particularly page 15 lines 1-22, page 17 line 1 to page 19 line 19, page 21 lines 1-10, page 24 lines 3-33 of D2). Hence D2 discloses all the features of claims 2, 4, 6, 8, 25 and 28, except for the feature that the pairs of distinct angles of view are provided during a predetermined display interval, for each image (as per claim 1). However, page 17 lines 10-32 of D2 discloses, for example, presenting the images as slides in a cinema. It is an obvious selection to present each slide at predetermined intervals, and hence these claims are non-inventive over D2. Moreover, the number of pairs of visibly distinct angles of view in D2 will be necessarily be odd or even; hence choosing an even number as per claim 3 is an obvious selection requiring no inventive step (see also page 12 lines 1-8 of D2). Further, D2 teaches that small angles of view are preferable to larger angles of view (page 18 lines 7-9 of D2), and hence choosing angles of less than 15 degrees as per claim 9 is non-inventive in the light of D2.

No obvious combination of the prior art teaches or suggests different common centres as per claim 5; nor more than one viewing position as per claim 7; nor progressive movement of transmissive/reflective and opaque zones as per claims 10-24, 26, 29-37. Finally, the closest prior art to claim 27 is represented by D3, which does not teach or suggest projection onto a screen of polarisation diffusing material. Hence these claims are novel and inventive over the prior art.

INDUSTRIAL APPLICABILITY (IA)

The claims are applicable to three-dimensional display systems.

CLAIMS

1. (Cancelled)
2. (Amended) Three dimensional imagery including an imagery display having a succession of images initiated at predetermined intervals and means to provide, during each of said intervals and therefore for each of said images, a set of plural pairs of visually distinct angles of view of the respective image able to be scanned by left and right eyes respectively.
3. Three dimensional imagery according to claim 2 wherein the number of said pairs of visibly distinct angles of view is an even number.
4. Three dimensional imagery according to claim 2 or 3 wherein said pairs of visibly distinct angles of view are complementary about a common centre, parallel along a common horizontal axis.
5. Three dimensional imagery according to claim 2 or 3 wherein said pairs of angles of view have different common centres to provide a variety of different comparable focal points, or so as to contain vertical displacement between angles of view.
6. Three dimensional imagery according to any preceding claim wherein said angles of view are provided simultaneously or sequentially but always so as to appear substantially simultaneous and at a frame refresh rate sufficient to substantially eliminate visible flicker.
7. Three dimensional imagery according to any preceding claim wherein said angles of view are provided in and to different viewing positions.

in front of the display retaining means that comprises the area where imagery can be distinguished clearly.

- 5 12. Apparatus according to claim 10 or 11 wherein said imagery display retaining means is a cinematograph, video and/or projection apparatus screen on which the images are retained, and the predetermined interval is then the respective refresh period thereof.
13. Apparatus according to any one of claims 10 to 12 wherein the number of said pairs of visibly distinct angles of view is an even number.
- 10 14. Apparatus according to any one of claims 10 to 13 wherein said pairs of visibly distinct angles of view are complementary about a common centre, parallel along a common horizontal axis.
- 15 15. (Amended) Apparatus according to any one of claims 10 to 13 wherein said pairs of angles of view have different common centres to provide a variety of different comparable focal points, or so as to contain vertical displacement between angles of view.
16. Apparatus according to any one of claims 10 to 15 wherein said angles of view are provided simultaneously or sequentially but always so as to appear substantially simultaneously and at a frame refresh rate sufficient to substantially eliminate visible flicker.
- 20 17. Apparatus according to any one of claims 10 to 16 wherein said angles of view are provided in and to different viewing positions.
- 25 18. Apparatus according to any one of claims 10 to 17 wherein said angles of view are provided so that no two different views are displayed in or to the same viewing position during any sequence of display where persistence of vision could discern one view overlapping or superimposing on another view.

transmissive or reflective.

24. A method of viewing an imagery display comprising a succession of images initiated at predetermined intervals, the method including:

5 viewing the imagery display through optical grid means as transmissive/reflective and opaque zones are progressively moved across the optical grid means whereby said progressively moving transmissive/reflective zones provide a set of plural pairs of visually distinct angles of view of the imagery display able to be scanned by the left and right eyes respectively, wherein said set of pairs of visually distinct angles
10 of view is provided during each of said intervals and therefore for each of said images.

25. (Amended) An optical grid device formed on an electro-optical panel or display, wherein the grid device is arranged with respect to associated imagery display means so that its configuration may be altered for each
15 image of a series of image displays initiated at predetermined intervals, so that the grid device provides, during each of said intervals and therefore for each of said images, a set of plural pairs of visually distinct angles of view of the respective image able to be scanned by left and right eyes respectively.

- 20 26. (Amended) An optical grid device having multiple variable elements controllable for altering the elements between opaque and transmissive or reflective conditions, whereby the application to the device of a control signal or signals for effecting said alteration of the elements causes a progressive movement of transmissive/reflective and opaque zones across
25 the device as the conditions of the elements are successively altered between opaque and transmissive or reflective.

27. (Amended) A device according to claim 25 wherein said optical grid device includes a three dimensional imagery optical grid having parallel vertical strips of alternating opposite polarisation rotations through which two visibly

distinct complementary angles of view are projected to form substantially aligned images on a screen composed of non polarisation diffusing material.

28. (Amended) A device according to claim 25 or 27 wherein said optical device
5 is an electro-optical panel including materials selected from polarising materials, liquid crystal materials and materials analogous in properties and functions to liquid crystal materials.
29. A medium in which are stored frames, representations, or machine
10 readable code from which may be generated an imagery display including a succession of images initiated at predetermined intervals, the medium further storing machine readable code for generating control signal or signals for said optical grid means through which the imagery display may be viewed, which control signal or signals cause progressive movement of
15 transmissive/reflective and opaque zones across the optical means whereby said progressively moving transmissive/reflective zones provide a set of plural pairs of visually distinct angles of view of the imagery display able to be scanned by the left and right eyes respectively, and wherein the control signal is applied and the optical grid means is arranged so that said set of pairs of visually distinct angles of view is provided during each of said
20 intervals and therefore for each of said images.
30. A medium according to claim 29 wherein said control signal or signals are in synchronism with frames of said images that contain said visually distinct angles of view.
31. A method of transmitting a signal for broadcasting, recording, displaying,
25 disseminating or downloading three dimensional imagery which includes transmitting a first component from which may be generated an imagery display including a succession of images initiated at predetermined intervals, and a second component for generating, in synchronism with said images, a control signal or signals for an optical grid means through which

5 the imagery display may be viewed, which control signal or signals cause progressive movement of transmissive/reflective and opaque zones across the means whereby said progressively moving transmissive/reflective zones provide a set of plural pairs of visually distinct angles of view of the imagery display able to be scanned by the left and right eyes respectively, and wherein the control signal is applied and the optical grid means is arranged so that said set of pairs of visually distinct angles of view is provided during each of said intervals and therefore for each of said images.

10 32. A method according to claim 31 wherein said control signal or signals are in synchronism with frames of said images that contain said visually distinct angles of view.

15 33. A method of displaying or disseminating three dimensional imagery which includes generating an imagery display including a succession of images initiated at predetermined intervals, and applying in synchronism with said images, a control signal or signals to an optical grid means through which the imagery display may be viewed, which control signal or signals cause progressive movement or transmissive/reflective and opaque zones across the means whereby said progressively moving transmissive/reflective zones provide a set of plural pairs of visually distinct angles of view of the imagery display able to be scanned by the left and right eyes respectively, and wherein the control signal is applied and the optical grid means is arranged so that said set of pairs of visually distinct angles of view is provided during each of said intervals and therefore for each of said images.

25 34. A method according to claim 32 wherein said control signal or signals in synchronism with frames of said images that contain said visually distinct angles of view.

35. (New) An optical grid device according to claim 26 wherein said elements are polarization elements having angles of polarization that progressively vary across the device.

36. (New) A device according to claims 26 or 35 wherein said optical grid device includes a three dimensional imagery optical grid having parallel vertical strips of alternating opposite polarisation rotations through which two visibly distinct complementary angles of view are projected to form substantially aligned images on a screen composed of non polarisation diffusing material.
- 5
37. (New) A device according to claims 26, 35 or 36 wherein said optical device is an electro-optical panel including materials selected from polarising materials, liquid crystal materials and materials analogous in properties and functions to liquid crystal materials.
- 10



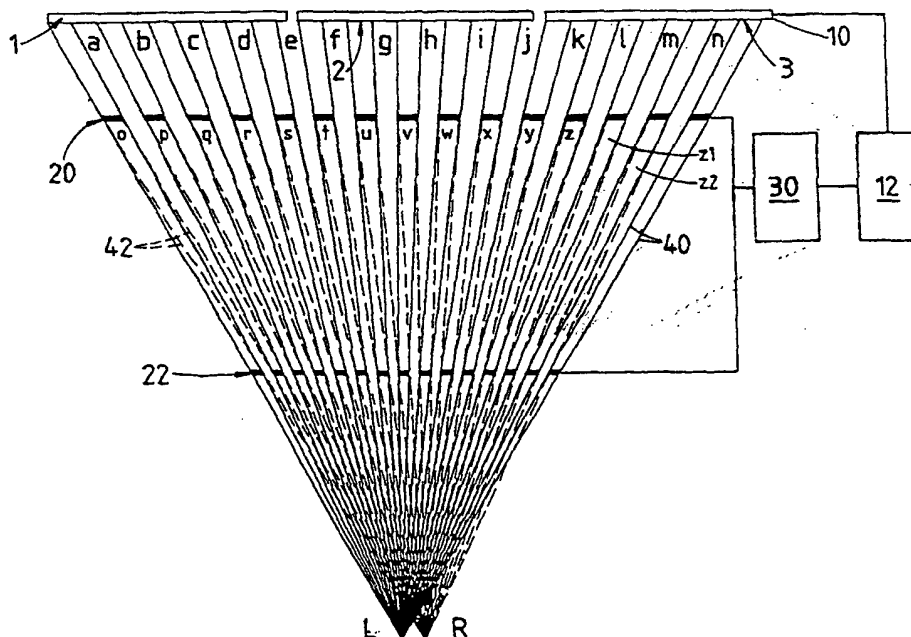
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁷ : G02B 27/22, 27/26, G03B 35/24, H04N 13/04</p>	<p>A1</p>	<p>(11) International Publication Number: WO 00/42466</p> <p>(43) International Publication Date: 20 July 2000 (20.07.00)</p>
<p>(21) International Application Number: PCT/AU00/00026</p> <p>(22) International Filing Date: 18 January 2000 (18.01.00)</p> <p>(30) Priority Data: PP 8204 18 January 1999 (18.01.99) AU</p> <p>(71) Applicant (for all designated States except US): TRUTAN PTY. LTD. [AU/AU]; Littlewoods, Level 2, 89 York Street, Sydney, New South Wales 2000 (AU).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): MARTIN, Donald [NZ/AU]; 3/53a Shadforth Street, Mosman, New South Wales 2088 (AU).</p> <p>(74) Agent: FREEHILLS CARTER SMITH & BEADLE; 101 Collins Street, Melbourne, VIC 3000 (AU).</p>		<p>(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published <i>With international search report.</i></p>

(54) Title: DYNAMIC OPTICAL GRID PROVIDING MORE THAN TWO ANGLES OF VIEW PER VIEWER

(57) Abstract

Three dimensional imagery composed of more than two angles of view to provide more than two visual references so that the eyes can scan and compare between more than two visibly distinct angles of view. Further provided is apparatus for viewing an imagery display, including means (10) for retaining the imagery display as a succession of images initiated at predetermined intervals. An optical grid means (20, 22) is arranged with respect to the imagery display retaining means so that the imagery display may be viewed through the grid means. Further included is means (30) for applying a control signal or signals to the optical grid means for causing progressive movement of transmissive (5) and opaque (4) zones across the means whereby the progressively moving transmissive zones scanned by the left and right of visually distinct angles of view are related methods, an optical



sively moving transmissive zones provide a set of plural pairs of visually distinct angles of view of the imagery display able to be scanned by the left and right eyes respectively. The control signal is applied and the optical grid means is arranged so that the set of pairs of visually distinct angles of view is provided during each of the aforesaid intervals and therefore for each of the images. Also provided are related methods, an optical grid device, and a medium.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU00/00026

A. CLASSIFICATION OF SUBJECT MATTER																						
Int. Cl. ⁷ : G02B 27/22, 27/26, G03B 35/24, H04N 13/04																						
According to International Patent Classification (IPC) or to both national classification and IPC																						
B. FIELDS SEARCHED																						
Minimum documentation searched (classification system followed by classification symbols) IPC: G02B, G02F, G03B, H04N																						
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched																						
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI JAPIO																						
C. DOCUMENTS CONSIDERED TO BE RELEVANT																						
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																				
X	WO 94/17638 A (TRUTAN PTY LIMITED) 4 August 1994 Pages 12-24, Figures 1-2	1-6, 8-16, 18-25, 28-34																				
X	WO 93/08502 A (TRUTAN PTY LIMITED) 29 April 1993 Pages 7-26, Figures 1-8	1-6, 8-16, 18-24, 29-34																				
X	Derwent Abstract Accession No. 97-249085/23, Class T01, JP 09-080353 A (TOSHIBA KK) 28 March 1997 Abstract	1-6, 8-9																				
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex																						
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A"</td> <td>document defining the general state of the art which is not considered to be of particular relevance</td> <td>"T"</td> <td>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"E"</td> <td>earlier application or patent but published on or after the international filing date</td> <td>"X"</td> <td>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"L"</td> <td>document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"Y"</td> <td>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"O"</td> <td>document referring to an oral disclosure, use, exhibition or other means</td> <td>"&"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"P"</td> <td>document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family	"P"	document published prior to the international filing date but later than the priority date claimed		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention																			
"E"	earlier application or patent but published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone																			
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art																			
"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family																			
"P"	document published prior to the international filing date but later than the priority date claimed																					
Date of the actual completion of the international search 31 March 2000		Date of mailing of the international search report 12 APR 2000																				
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3299		Authorized officer MICHAEL HALL Telephone No : (02) 6283 2474																				

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00026

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99/01988 A (ERICSSON. INC.) 14 January 1999 Pages 6-13, 18-19, 22-28. Figures 1-5, 9-19	1-3, 5-9
X	US 5678910 A (MARTIN) 21 October 1997 Whole document	1, 6-8
X	US 5825541 A (IMAI) 20 October 1998 Columns 9-10, 15-16, Figures 4A-4B, 7A-7B	25-26, 28
X	DE 4123895 A (JUST et al.) 21 January 1993 Columns 3-6, Figures	25, 28
X	WO 95/00880 A (TRUTAN PTY. LIMITED) 5 January 1995 Pages 20-27, Figures 8-13	25, 28
A	EP 645659 A (SHARP KABUSHIKI KAISHA) 29 March 1995 Whole document	25-28

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/AU00/00026

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
WO	9417638	AU	58763/94	BG	99808	BR	9406312
		CA	2154259	CN	1118210	CZ	9501882
		EP	680683	FI	953481	HU	73088
		NO	952876	PL	309947		
WO	9308502	AU	15981/92	BR	9206565	CA	2068479
		CN	1073017	EP	616698	JP	5216139
		NO	940869	ZA	9208123		
WO	9901988	AU	47484/97	US	5675377	US	5892538
US	5678910	AU	69142/91	CA	2089084	CN	1058848
		EP	542747	JP	6501782	NZ	237538
		WO	9202845	ZA	9102358		
US	5825541	JP	9043540				
WO	9500880	AU	64627/94	AU	62905/94	BG	100250
		BR	9406848	CA	2165434	CN	1125987
		CZ	9503348	EP	706677	FI	956090
		HU	76411	LV	11503	NO	955152
		PL	312322	SG	52514	SK	1628/95
		ZA	9404454				
EP	645659	GB	2282505	JP	7168125	US	5616912
END OF ANNEX							

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00026

Box I Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos :
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos :
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-24, 29-34 (three dimensional imagery with more than two angles of view per viewer),
2. Claims 25-28 (optical grid with alterable configurations),

as reasoned on the extra sheet.

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims: it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU00/00026

Supplemental Box

(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: II

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1-24, 29-34 directed to provision of more than two angles of view to be scanned by a viewer's eyes for the perception of 3-dimensional imagery. It is considered that provision of more than one pair of angles of view to be scanned by a viewer's eyes comprises a first "special technical feature".
2. Claims 25-28 directed to an optical grid device, the configuration of which may be altered to take up plural positions. It is considered that altering the configuration to take up plural positions comprises a second "special technical feature".

That these two inventions do not share the technical features identified is emphasised by page 14 lines 9-11 of the application, where it is stated that "the second aspect of the invention [invention 2 identified above] may be adapted to the scanning of conventional "two-view" three-dimensional imagery, and is therefore not limited in its application to the first aspect of the invention [invention 1 identified above]".

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.